

setting said detected injection pressure waveform as a target injection pressure waveform for pressure feedback control in the injection/dwell stage.

Sub E' 2. (ONCE AMENDED) A pressure waveform setting method for injection pressure control according to claim 1, wherein [trial injection is executed with] the at least one molding condition includes an injection pressure switching screw position, [and] an injection speed, [set as molding conditions for the injection/dwell stage in an injection speed control section, and with] a dwell pressure and a dwell time[, along with other molding conditions, set in a dwell section; the trial injection is executed on the condition that said molding conditions be modified when necessary until the conforming molded article can be obtained; and said injection pressure waveform is set as the target injection pressure waveform when the conforming molded article is obtained], the injection pressure switching screw position and the injection speed being set for the injection/dwell stage in an injection speed control section of an injection molding machine, and the dwell pressure and dwell time being set in a dwell section of the injection molding machine, said steps of adjusting, performing and detecting being repeated until a conforming molded article is obtained, and said step of setting being performed if the conforming molded article is obtained.

C' 3. (ONCE AMENDED) A pressure waveform setting method according to claim [1] 2, [wherein trial injection is executed with an injection pressure switching screw position and an injection speed set as molding conditions for the injection/dwell stage in an injection speed control section, and with a dwell pressure and a dwell time, along with other molding conditions, set in a dwell section; the pressure acting on the resin during the injection/dwell stage is detected as the injection pressure waveform based on the function of time; said detected injection

pressure waveform is set as the target injection pressure waveform for pressure feedback control in the injection/dwell stage; trial injection based on the pressure feedback control is executed, and said molding conditions and said target injection pressure waveform are modified until the conforming molded article can be obtained] further comprising the step of:
setting the at least one molding condition if the conforming molded article is obtained.

4. (TWICE AMENDED) A pressure waveform setting method for injection pressure control of a resin, comprising the steps of:

[previously] storing for [an original] a first mold a first [set] injection pressure waveform [observed when a molded article is obtained, or an injection pressure waveform obtained by detecting a pressure acting on a resin during an injection/dwell stage as a function of time] for injection pressure control;

determining whether a second mold is similar to the first mold;

[invoking and] displaying on a display device the first injection pressure waveform of [a new] the first mold, based on said step of determining [which has already been stored when a new mold to be used for molding is similar to the original mold];

modifying the first injection pressure waveform using the display device, to generate a second injection pressure waveform for the second mold;

setting the second injection pressure waveform for the second mold; and

[assigning two points in the displayed injection pressure waveform;

changing the injection pressure waveform between said two points into a straight line connecting said two points to draw a straight line, to generate a modified injection pressure waveform;

assigning two points in the injection pressure waveform as a starting point and an end point individually;

assigning one point between said starting and ending points to change the injection pressure waveform between said starting and end points into a curve connecting the one point and the starting and ending points in a circular arc, to draw a curve, to generate the modified injection pressure waveform;

reading and setting, as the set injection pressure waveform, an injection pressure for each predetermined time interval from the modified injection pressure waveform; and]

performing injection molding based on the set second injection pressure waveform [set from the modified injection pressure waveform].

5. (TWICE AMENDED) An injection molding machine for changing pressure waveform for molding an article, which is controlled by at least one processor for detecting a pressure acting on a resin during an injection stage and provides feedback control of said detected pressure so that the detected pressure agrees with at least one of injection pressure waveforms stored as [a function] functions of time in a set injection pressure storage unit [means], the injection molding machine having a display device, comprising:

storage means for storing [and retaining] said injection pressure waveforms;

display control means for [causing an injection pressure waveform, selected among the injection pressure waveform, selected among the injection pressure waveforms stored in said storage means, to be displayed] displaying on a screen of the display device, a selected one of the injection pressure waveforms stored in said storage means;

injection pressure waveform changing means for modifying the selected one of the injection pressure waveforms by [assigning] designating two points in the selected one of the injection pressure [waveform] waveforms displayed on said display

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[means] device[,] and changing the selected one of the injection pressure [waveform] waveforms between said two points into a straight line connecting said two points [to draw a straight line], to generate a modified injection pressure waveform, and [for assigning] by designating two points in the selected one of the injection pressure [waveform] waveforms as a starting point and an end point individually, [assigning] designating one point between said starting and ending points, and changing the selected one of the injection pressure [waveform] waveforms between said starting and end points into a curve connecting the one point and the starting and ending points [in a circular arc to draw a curve], to generate the modified injection pressure waveform;

injection pressure waveform setting means for reading an injection pressure for each predetermined time interval from the modified injection pressure waveform [drawn] displayed on the screen of the display device [and having at least one of the straight line and the curve], and storing the [read] injection pressure as set injection pressure waveform data, in the set injection pressure waveform storage unit [means]; and

injection molding means for molding the article, based on the set injection pressure waveform data set from the modified injection pressure waveform [having at least one of the straight line and the curve].

6. (TWICE AMENDED) An injection molding machine capable of changing a pressure waveform for molding an article, [which is] controlled by at least one processor for detecting a pressure acting on a resin during an injection stage and [provides] having feedback control [of said] using the detected pressure so that the detected pressure agrees with an injection pressure waveform stored as a function of time in a set injection pressure storage unit [means], the injection molding machine having a display device, and receiving an injection pressure waveform modification command, comprising:

storage means for storing the pressure on the resin detected for each predetermined time interval during the injection stage to obtain an actual injection pressure waveform stored in said storage means;

display control means for [causing] displaying the actual injection pressure waveform stored in said storage means [to be displayed] on a screen of the display device in response to the injection pressure waveform modification command;

injection pressure waveform changing means for modifying the actual injection pressure waveform by [assigning] designating two points in the actual injection pressure waveform displayed on said display [means] device and changing the injection pressure waveform between said two points into a straight line connecting said two points, to generate a modified injection pressure waveform, [to draw a straight line,] and [for assigning] by designating two points in the injection pressure waveform as a starting point and an end point individually, [assigning] designating one point between said starting and ending points, changing the injection pressure waveform between said starting and end points into a curve connecting the one point and the starting and ending points [in a circular arc to draw a curve], to generate the modified injection pressure waveform;

injection pressure waveform setting means for reading an injection pressure for each predetermined time interval from the modified injection pressure waveform [drawn] displayed on the screen of the display device [and having at least one of the straight line and the curve], and storing the read injection pressure as set injection pressure waveform data, in the [step] set injection pressure waveform storage unit [means]; and

injection molding means for molding the article, based on the set injection pressure waveform data set from the modified injection pressure waveform [having at least one of the straight line and the curve].

Please **ADD** new claims 7-12 as follows.

7. A method as claimed in claim 4, wherein said step of modifying includes the substeps of:

designating first and second points on the first injection pressure waveform; and

changing a portion of the first injection pressure waveform between the first and second points into a straight line, to generate the second injection pressure waveform.

8. A method as claimed in claim 4, wherein said step of modifying includes the substeps of:

designating first and second points on the first injection pressure waveform,

designating a third point between the first and second points on the first injection pressure waveform, and

changing a portion of the first injection pressure waveform between the first and second points into an arc including the first, second and third points, to generate the second injection pressure waveform.

Sub 2
E 9. A method of generating an injection pressure waveform for feedback control of a pressure exerted on a resin in operation of an injection molding machine, the injection molding machine including a detector generating a detected pressure based on the pressure exerted on the resin, comprising the steps of:

a) periodically sampling the detected pressure; and

b) storing the detected pressure in a memory, in association with an address corresponding to a time at which the detected pressure was sampled in said step (a),

said steps (a) and (b) being repeatedly executed to generate the injection pressure waveform which is stored in the memory.